

Open Literature Review Summary

Chemical Name: Imidacloprid

CAS No: 138261413

MRID: 47699421

Record Number and Citation:

Schmuck,R., Schoning,R. “Residue levels of imidacloprid and imidacloprid metabolites in nectar, blossom and pollen of sunflowers cultivated on soil with different imidacloprid residues levels and effects of these residues on foraging honeybee”

Summary of Study Findings:

This study was conducted according to good laboratory practices (GLP). Sunflower seeds were dressed 150 g/U (U= 150,000) of imidacloprid. A combination of treatment plots were used, two of the treatment plots were sown with imidacloprid free seed in imidacloprid contaminated soil. The third plot was sown with gauchos seed in imidacloprid-free soil.

In the first treated plot, imidacloprid was at concentrations of 0.018 mg/kg in the soil and below the level of detection in second plot. The third field, imidacloprid was in the sunflower leaves at 0.007 mg/kg.

Tunnel cages were placed on field before full sunflower bloom, a small hives of 2,000 to 3,000 honeybees. During the 10 day period bees were allow to forage on the treated sunflower crop.

The author states that no negative behavioral effects on honeybees and foraging activity.

Rationale for Use:

No behavior effects on the honeybees foraging on the sunflowers treated with imidacloprid.

Limitations of Study:

Detection of imidacloprid was low in the environment, no negative effects seen due to lack of exposure.